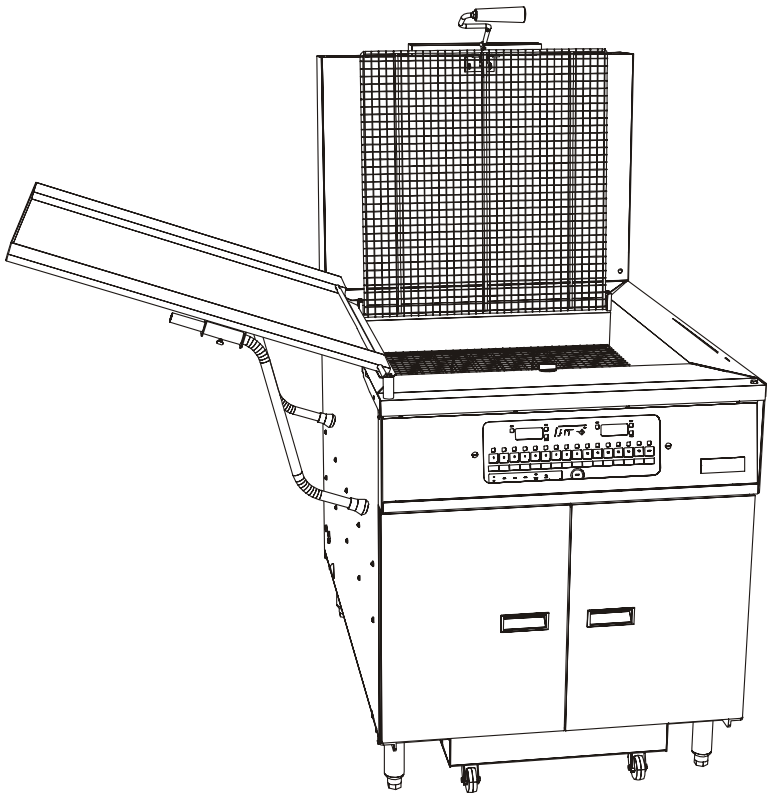
ENGLISH

Installation and Operation Manual
For Gas Fryers
Covering Models
DD-24RUFM



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L20-247 Rev 2 (05/11)

TO THE PURCHASER, OWNER AND STORE MANAGER

Please review these warnings prior to posting them in a prominent location for reference.

WARNING

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WARNING

Improper installation, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this appliance.

WARNING

Installation, maintenance and repairs should be performed by a Pitco Authorized Service and Parts (ASAP) company technician or other qualified personnel. Installation, maintenance or repairs by unauthorized and unqualified personnel will void the warranty.

WARNING

Installation and all connections must be made according to national and local regulations and codes in force.

WARNING

A country approved all pole circuit breaker with a minimum open contact gap of 3mm must be used for proper installation. (CE countries)

WARNING

During the warranty period if a customer elects to use a non-original part or modifies an original part purchased from Pitco and/or its Authorized Service and Parts (ASAP) companies, this warranty will be void. In addition, Pitco and its affiliates will not be liable for any claims, damages or expenses incurred by the customer which arises directly or indirectly, in whole or in part, due to the installation of any modified part and/or received from an unauthorized service center.

WARNING

This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.2, as applicable.

WARNING

DO NOT alter or remove structural material on the appliance to facilitate storage or for any other reason.

WARNING

This appliance is intended for professional use only and should be operated by fully trained and qualified personnel.

WARNING

DO NOT use the electrical cord as a leash to move the appliance. Series injury and appliance damage can occur.

WARNING

If the supplied power cord or receptacle is damaged, it must be replaced by a Pitco Authorized Service and Parts (ASAP) company technician, or a similarly qualified person in order to avoid a hazard.

WARNING

The power supply must be disconnected before servicing, maintaining or cleaning this appliance.

WARNING

The appliance is NOT jet stream approved. DO NOT clean the appliance with a water jet.

WARNING

DO NOT attempt to move this appliance or transfer hot liquids from one container to another when the unit is at operating temperature or filled with hot liquids. Serious personal injury could result if skin comes in contact with the hot surfaces or liquids.

WARNING

DO NOT sit or stand on this appliance. The appliance's top panel, filter pan, filter carriage, pan cover is not a step. Serious injury could result from slipping, falling or contact with hot liquids.

WARNING

NEVER use the appliance as a step for cleaning or accessing the ventilation hood. Serious injury could result from slips, trips or from contacting hot liquids.

WARNING

The filter pan should be dry and free of water droplets prior to use. Serious injury could result from hot steam vapors when hot oil/shortening mixes with water.

WARNING

DO NOT overfill filter pan with hot oil/shortening. Do not leave appliance unattended while draining or refilling with oil/shortening. Over filling the appliance can cause serious injuries and damage the appliance.

WARNING

The contents of the crumb catch and/or filter pan of any filter system must be emptied into a fireproof container at the end of each day. Some food particles can spontaneously combust if left soaking in certain types of oil or shortening.

WARNING

Completely shut the appliance down when the oil/shortening is being drained from the appliance. This will prevent the appliance from heating up during the draining and filling process. Serious injury and appliance damage can occur.

WARNING

This appliance is intended for indoor use only.

WARNING

DO NOT operate appliance unless all panels and access covers are attached correctly.

WARNING

It is recommended that this appliance be inspected by a qualified service technician for proper performance and operation on a yearly basis

WARNING

This appliance is designed to operate on a specific voltage. This information can be found on the data plate located on the rear of the appliance

INTRODUCTION

This manual explains how to set up and operate the model DD24R-UFM Doughnut Fryer. When compared with earlier doughnut fryers, this unit uses less shortening and 40% less heat energy. The unit has a special shallow frying tank, designed to process floating bakery products. The DD 24R-UFM includes a built in filter system, so it is not necessary to store a separate filter.

	American Units	Metric Units
Shipping Weight	550 lbs.	249 kgs
Height Overall	57”	144.8 cm
Height to top of Fry Tank	34”	86.4 cm
Width of Fryer	29-½”	75.0 cm
Width of Drainboard	57-½”	146.1 cm
Hourly Gas Input	72,000 Btu’s	18150 kcal
Gas Connection	½” NPT	1.27 cm
Frying Area	24” X 24”	61 cm X 61 cm
Frying Depth	3”	10.2 cm
Recommended Shortening Capacity	120 lbs.	54.5 kgs
Doughnut Screen Size	23” X 23”	58.4 cm X 58.4 cm
Electrical Requirements	120 V AC, 60Hz, 15 Amps 220-240V AC, 50Hz, 10 Amps	

SAFETY NOTES

WARNING! The Model 24R fryer is safe and reliable when it has been installed correctly, and is operated safely. Pitco Frialator wants to be sure you get the best possible service from your fryer. It is very important that you read the instructions in this manual before you install or operate the fryer. If you follow the rules listed below, you should have years of trouble-free service from your Pitco fryer.

WARNING! There is an open gas flame inside this fryer. The fryer can get hot enough to set nearby materials on fire. When installing the fryer, allow at least 6 inches (15 cm) of air space to any material that can burn. Do not stack paper, cardboard, or other burnable material near the fryer. If you allow burnable material to touch the fryer, or stack it near the fryer, the material may catch fire. Do not use gasoline near the fryer. Do not store gasoline or other flammable vapors and liquids near the fryer.

WARNING! When the fryer is operating normally, you should never smell gas. If you do smell gas, something is wrong. If there is a gas leak, the gas may collect in the building. The gas may then be ignited by a spark or open flame, causing a dangerous explosion. LP gas (propane) is heavier than air, and tends to collect at floor level. The gas smell may be stronger near the floor. Here is some general safety rules:

If you smell gas, turn off the fryer right away, turn off the gas valve in the fryer right away. Do not press the controller ON/OFF key. Instead, turn off the gas valve in the fryer. Then turn off the gas at the main gas valve, on the gas tank outside the building, or at the main gas pipe. Everyone should leave the building right away. Call the gas company and the fire department, and wait outside the building until they arrive. On the telephone, be sure to give your name, address and phone number. Do not go back into the building.

Do not light any matches or lighters. Do not turn any electrical switches on or off - this can create a spark, which can ignite the gas. Do not use an electric fan to clear the gas.

For more detailed instructions, ask your local gas supplier. Write down the instructions and post them in a visible place. Be sure everyone understands what to do if they smell gas.

WARNING! Be sure the fryer can get enough air to keep the flame burning correctly. When the flame is “starved” for air, it can give off a dangerous gas called “carbon monoxide.” Even though you can’t see or smell this gas, it can still hurt you.

WARNING! The fryer can also give off carbon monoxide gas if the flue vent is blocked. See Fig. 2. Blocking the flue vent can also cause the fryer to overheat and cause a fire hazard. Do not set anything on top of the flue vent, or block it in any way.

WARNING! Each fryer is equipped to work with one type of fuel gas (either natural gas or LP/propane). The type of fuel gas which the fryer is designed to use is stamped on the data plate that is attached to the inside of the door. Do not operate the fryer with any other kind of fuel gas.

WARNING! Before operating the fryer, test all fuel gas connections for leaks. Use a solution of soap and water, or a similar solution. Ask the gas supplier for an approved substance. Do not use an open flame to test for gas leaks!

WARNING! The fryer is equipped with a three-prong electrical plug. This three-prong plug is part of a "grounding" system that will protect you if something goes wrong with the electrical wiring in the fryer. Be sure the three-prong plug is plugged into a matching three-prong socket. Do not cut or break off the large third prong on this plug, or the protective system won't work.

If the fryer does not have a three-prong electrical plug, a qualified electrician should make all of the main electrical connections. The 120V AC or 220/240V AC current can cause severe burns, and can even kill you!

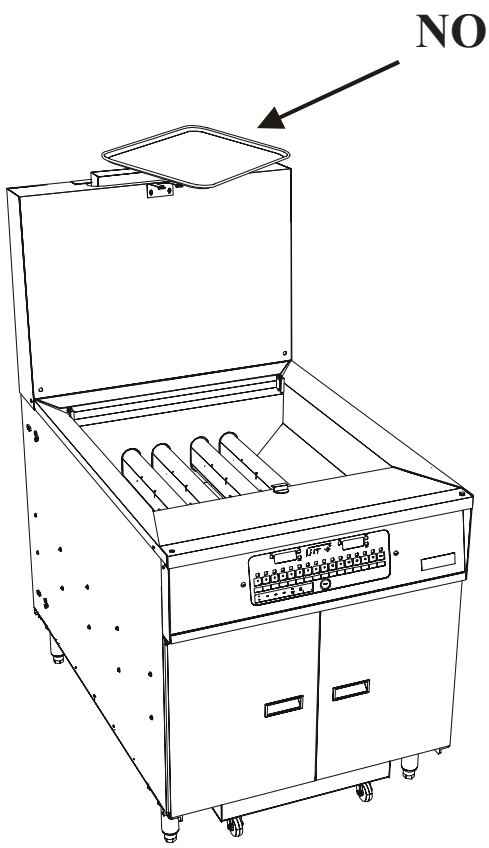


Fig. 2

WARNING! Only a qualified electrician should work with the electrical parts inside the fryer. Be very careful to avoid energized electrical parts. Depending on the type of fryer, some of the internal parts carry 120V AC or 220/240V AC. This voltage can be dangerous. Always unplug the power cord, or turn off the power before working on the fryer. Plug the fryer in only when this is necessary to make test measurements on the electrical system.

WARNING! Do not use the fryer until the fryer itself and the installation have been checked and approved. The fryer and installation should conform with all local building, gas, and electrical codes.

WARNING! Do not use the fryer until it has been cleaned. Before shipment, the fryer kettle is given a thin protective coating. Before you use the fryer, clean the kettle to remove this coating.

WARNING! Clean out the exhaust stack regularly. Over time, greasy material can collect in the hood. If this greasy material becomes too hot, it can catch fire. Install an automatic fire extinguishing system if possible.

WARNING! Turn the fryer control off before draining the shortening.

WARNING! The shortening in the fryer may be as hot as 375°F (190°C). If you touch this shortening, it can cause very bad burns! Always wear oil-proof insulated gloves when you are pouring or filtering hot shortening.

Do not work on the fryer until the shortening in the kettle has cooled to 135°F (57°C) or less. Do not move the fryer when it contains hot shortening. Wait until the shortening has cooled to 135°F (57°C) or less.

WARNING! If the fryer has been turned on, some of the parts may be very hot! Do not fill the kettle with shortening or touch these parts unless they have cooled to room temperature. Do not touch the flue outlet, or go near the area over the flue outlet while the burners are operating.

WARNING! Before turning on the fryer, be sure the burner tubes are covered by at least 1 inch (2.5 cm) of melted shortening. See Fig. 3. Never allow the burner tubes to become hot while they are surrounded with air. The heating tubes will quickly overheat and scorch the shortening.

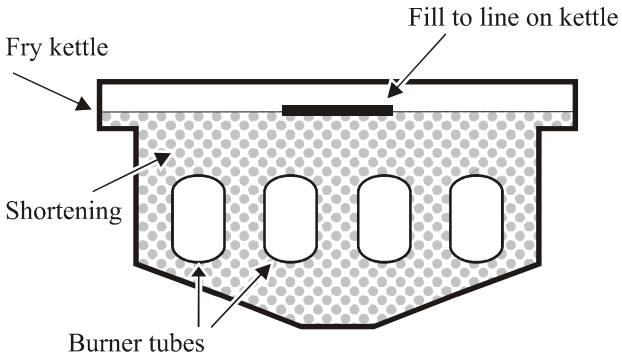


Fig. 3

For testing purposes, you may cover the burner tubes with water. Before you use the fryer, be sure to remove the water, and fill the kettle with shortening.

WARNING! Do not try to melt a block of solid shortening by placing it on top of the burner tubes, as shown in Fig. 4. If you are using solid shortening, cut the shortening into

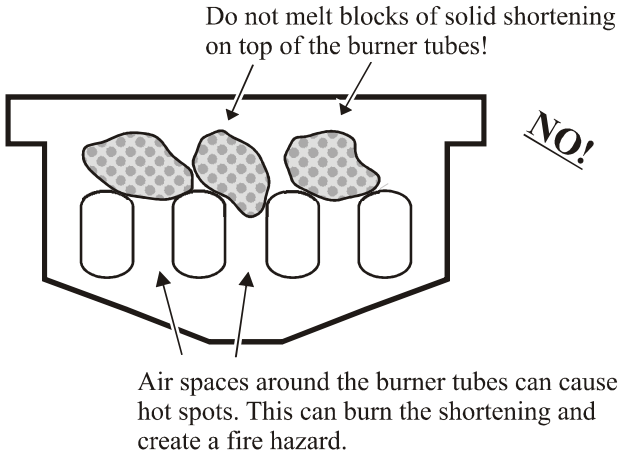

Do not melt blocks of solid shortening on top of the burner tubes!
NO!
Air spaces around the burner tubes can cause hot spots. This can burn the shortening and create a fire hazard.

Fig. 4

blocks and pack it around the burner tubes, leaving no air spaces. See Fig. 5. If you leave any air spaces, the burner tubes may burn the shortening as they heat up. This could create a fire hazard. This will also void the warranty on the frying kettle.

When melting solid shortening in the kettle, use the "melt" cycle, not the normal heating cycle. During the "melt" cycle, the controller will turn the gas flame on and off automatically, and heat the shortening slowly. This will help prevent the shortening from burning.

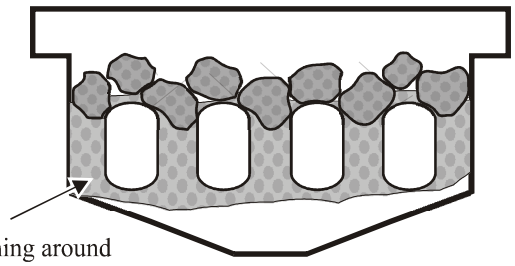


Fig. 5

WARNING! Be careful not to aim the filtering hose at anyone. When the filtering pump is turned on, it can shoot hot shortening through the filtering hose. Never turn on the pump switch unless the end of the filtering hose is aimed into the kettle or the filter pan.

WARNING! If you allow some shortening to spill on the floor, it may be slippery. Clean up any spilled shortening quickly.

WARNING! If the electrical power is cut oft, the fryer will stop working. Do not turn on the fryer again for at least 5 minutes. This allows time for extra gas to clear from the area around the fryer.

WARNING! Do not drop any water into the hot shortening. The water can create steam, causing the shortening to spatter. The hot shortening can cause burns.

INSTALLATION INSTRUCTIONS

Receiving and Assembly

1. Before you begin to install the fryer, read all of the safety notices in the previous section. This is very important.
2. Unpack the fryer from its packing container. Check the fryer and any accessories to be sure they weren't damaged during shipment. If you do notice damage, report it to the trucking company that brought the fryer. You should report any damage within 15 days of the time you receive the fryer.
3. The legs may be installed at the factory. If they are not, be sure to install the legs before you connect the gas supply line. There must be an air space under the fryer. This allows for easy cleaning under the fryer. The burners must be able to get enough air. If the burners are "starved" for air, they can give off a dangerous gas called "carbon monoxide." See the warnings in the section on "Safety Notes."

   Attach each leg using four 1/4-20 x 5/8 hex-head cap screws, with hex nuts and lock -washers. These parts are supplied with the fryer. Be sure the screws are tight. Mount the screws so the heads are inside the fryer, and the points face outward. It may be easier to attach the legs if you set the fryer on its side or back. If you do this, be sure to protect the outside of the fryer with cardboard when you lay it down. When you stand the fryer up again, be careful not to put too much weight on anyone leg or pair of legs.
4. Assemble the drainboard. See Fig. 7. The drainboard can be installed so that it extends to the right or the left of the fryer.

   If you're going to attach the drainboard to the right side of the fryer, set the drainboard so the 3/8 inch clearance holes (1 cm) are at the left end of the board. To attach the drainboard to the left side of the fryer, set the drainboard so these holes are on the right end of the board.

   Slide the hinge rod through the clearance holes in the drainboard, sliding from front to back. The spacer is a hollow tube that is 1/2 inch (1.2 cm) in diameter and 2-5/8 inches (6.6 cm) long. Slide this spacer over the part of the hinge rod which protrudes from the rear hole on the drainboard. Insert the rear end of the hinge rod through the matching hole in the splash guard.

   A 3/8-16 x 2-1/2 hex-head cap screw (6.3 cm long) may be attached to the front top corner of the kettle. If your fryer includes this screw, remove it. If the screw is not in place on the fryer, you will find the screw packed with the other parts of the fryer. Fit the washer under the head of this screw, then slide the screw through the hole in the hinge rod post. Thread the end of the screw into the matching hole in the top of the fryer. Tighten the screw securely.

   Pivot the drainboard to the right (or left, depending on the direction you want the drainboard to extend from the fryer). Both support legs should drop into position against the cabinet side. The pitch of the drainboard can be adjusted by moving the support legs. When you're not using the fryer, swing the board back over the kettle as a protective cover.

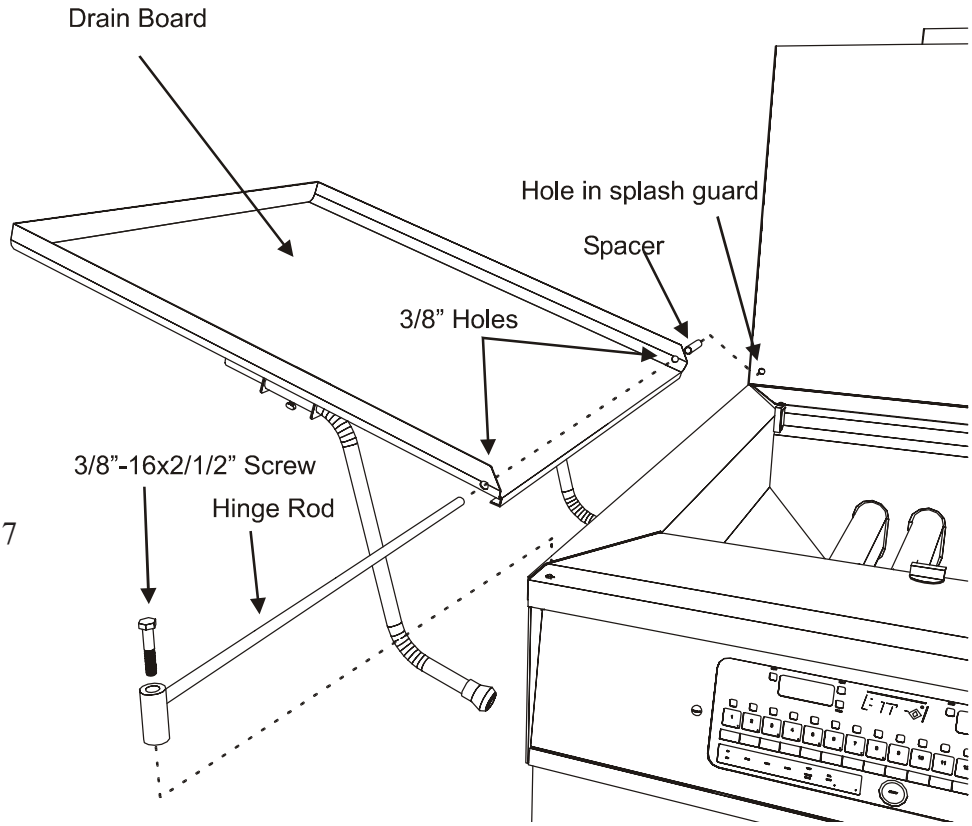


Fig. 7

5. A fryer can be converted to burn a different type of gas (LP to natural gas or natural gas to LP). Several parts must be changed including the main burner orifice, the pilot burner orifice, and the main gas valve. The user cannot make this conversion. This work should be done by a Pitco Authorized Service and Parts Dealer.

Electrical Connections

1. If local electrical codes do not apply. Follow the National Electrical Code as you install the electrical service. In Canada, follow C.S.A. Standard C22.1 and/or local codes. You should find a copy of the wiring diagram on the inside of the door.
2. The fryer, when installed, must be electrically grounded. Follow the local electrical codes. If local codes do not apply, follow the National Electric Code, ANSI/NFPA 70-Current. If the fryer is equipped with a three-prong (grounding) plug, this plug should be plugged directly into a properly grounded three-prong socket. Do not cut or remove the grounding prong from this plug.

Gas Connections

1. Install the fuel gas service, following local gas codes, if they apply. Otherwise, follow the National Fuel Gas Code, ANSI/Z223.1-1980. In Canada, follow C.G.A. Standard B149.1, B149.2 and/or local codes. Contact the local gas supply company to find out the right size for the gas supply line. The fryer won't work properly if the gas line is too small. When making the gas supply connections, use a pipe joint compound that resists the action of liquefied petroleum gasses.
2. Each fryer is designed to use one type of fuel gas (either natural gas or LP/ propane). The type of fuel gas which the fryer is designed to use is stamped on the data plate that is

attached to the inside of the door.

WARNING! Do not operate the fryer with any other kind of fuel gas.

3. Before operating the fryer, test all fuel gas connections for leaks. Use a solution of soap and water, or a similar solution. Ask the gas supplier for an approved substance.

WARNING! Do not use an open flame to test for gas leaks!

4. If you are pressure-testing the gas supply piping, disconnect the fryer from the gas supply. If the test pressures will be greater than 1/2 psig (3.45 kP A), turn off the main shutoff valve "upstream" of the fryer. This will disconnect the fryer, and its manual shutoff valve. If the test pressures will be equal to or less than 1/2 psig., turn off the fryer's individual manual shutoff valve.
5. The burner manifold operating pressure should be as specified for the fuel gas for which the fryer is equipped. Proper manifold operating pressures are indicated on the data plate attached to the inside of the door of the unit.
6. The main burner flame should be adjusted using the air collars located on the lower part of each burner. The air collar should be raised or lowered to provide a soft blue flame with well-defined inner cones. The flames should enter the heat tube without touching the outside rim of the tube. A properly adjusted flame should not exhibit "lifting off" from the burner face. This indicates excessive flow. You should not see yellow tips on the flames. This indicates insufficient combustion air. Once the flames are properly adjusted, the air collar should be locked in place using the locknut or set screw provided.

Ventilation, Flue Exhaust, and Fire Extinguishers

1. Refer to local codes if you install a grease extractor, ventilating hood, filter unit, or fire extinguishing system. If local codes do not apply, refer to the following standards:

Grease Extractor.....ANSI/UL 710-Current.....ANSI/NFPA 96-Current
Ventilating Hood.....ANSI/UL 507-Current.....ANSI/NFPA 96-Current
Filter Unit.....ANSI/UL 900-Current and
ANSI/UL 586-Current..... ANSI/NFPA 96-Current
Fire Extinguishing
(CO2).....UL 154-Current.....ANSI/NFPA 12-Current
(Dry Chemical)...UL 299-Current.....ANSI/NFPA 17-Current
(Water).....UL 626-Current.....ANSI/NFPA 13-Current
(Foam).....ANSI/NFPA 11-Current
(Sprinklers).....UL 199-Current.....ANSI/NFPA 13-Current
Smoke Detectors.....UL l68-Current.....ANSVNFPA 72B-Current
Fire Detection
Therrnostats.....ANSI/UL 521-Current.....ANSVNFPA 72B-Current

This listing of installation standards is not necessarily complete. Other nationally recognized standards may be equally appropriate. For additional information, contact

the American Gas Association, 8501 East Pleasant Valley Road, Cleveland, Ohio 44131.

2. The fryer must have adequate ventilation to prevent the formation of carbon monoxide gas. We explained this problem in the section on "Safety Notes." Excessive ventilation can cause drafts, which may interfere with the proper operation of the burner. On units with pilot ignition, drafts can also interfere with the pilot.
3. Leave at least 18 inches of open space between the fryer's flue opening and the intake of the exhaust hood. Do not connect the blower directly to the flue opening. This will cause poor temperature recovery, and poor ignition. On units

   with pilot ignition, too much draft may also cause the pilot to go out. Too much draft will generally make the fryer work inefficiently.

   The vent system should be designed so that it can be cleaned easily. Clean out grease and dirt on a regular schedule. This will reduce any possible fire hazard. Install an approved fire fighting system. Exhaust gas temperatures in the fryer may be as high as 1200°F (650°C). The sensing device that activates a fire fighting system should be chosen and located properly to reduce "false alarms."

Installing The Fryer

1. Set the fryer in position. Allow at least 6 inches of clearance from any combustible walls or materials. In front of the fryer, allow at least 30 inches (76 cm) of space for the operator.

WARNING! To avoid a possible fire hazard, keep all combustible materials at least 6 inches (15.5 cm) away from the fryer.

2. Be sure the fryer is level. Use the adjustments located in the base of each leg.
3. When the fryer is shipped from the factory, many of the metal parts are covered with a thin layer of protective oil. Before you use the new fryer, be sure to clean it carefully to remove this coating. This will also remove any dirt, dust, or foreign matter that may have accumulated during storage and shipment.
4. If your fryer is equipped with a plain steel vat (not stainless), the surfaces of the vat should be coated with shortening after it is washed. This will prevent rust from forming. After the vat is "seasoned", this not necessary.

OPERATING INSTRUCTIONS

Filling the Fry Kettle -

WARNING! Be sure the burner tubes are completely covered with fluid before you try to light either the pilot or main burners.

1. Do not light the burners unless the burner tubes are covered with shortening. The fryer may overheat and cause a fire hazard. See Figure 3. The pilot burner should be lit whenever the fryer is waiting to be used. When you turn the fryer on, the flame from the pilot will light the main burners.
2. Figure 8 shows how to set the valves when you are filling the fry kettle. Close the drain valve. Swing the handle clockwise so it points to the left. Close the flush valve (yellow handle). Close the return valve (red handle).
3. Pack the vat with solid shortening up to the min. fill line.
4. If you are using solid shortening, cut the shortening into chunks, and pack it around the burner tubes, as shown in Fig. 5.

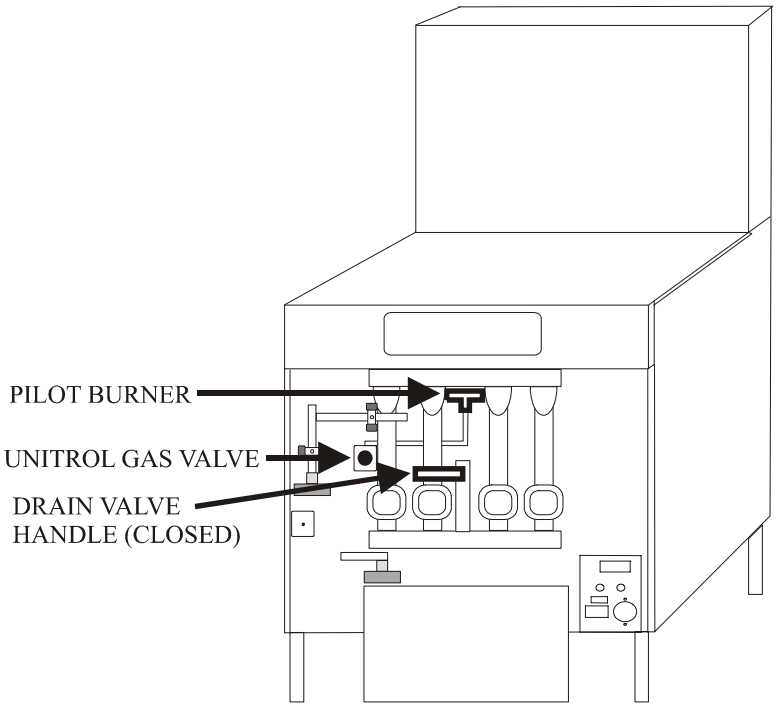


Fig 8
Fryer controls

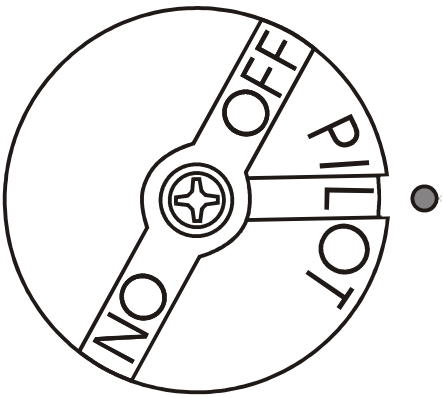


Fig. 9
"Pilot" position on unitrol

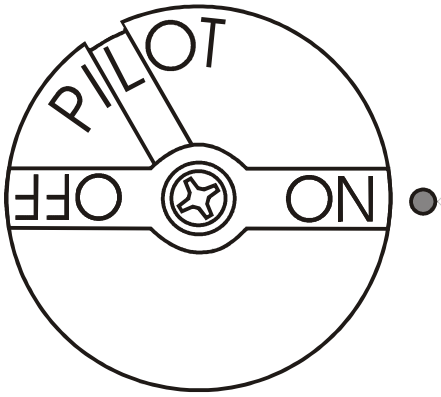


Fig. 10
"On" position on unitrol

WARNING! Do not leave any air spaces around the burner tubes. This can create "hot spots," which can burn the shortening and create a fire hazard.

Lighting the Pilot -

1. The fryer should be plugged in.
2. To light the pilot, find the Unitrol knob inside the cabinet. See Fig. 8. The Unitrol knob is light brown, and is marked with three positions: Off-Pilot-On. Turn the Unitrol knob to the Pilot position and push it inward. See Fig. 9.
3. While you're holding the knob in, light the pilot burner. This burner is located between the two center burners. See Fig. 8.
4. Hold the knob in, and let the pilot burn for 30 to 60 seconds.
5. Release the knob. The pilot should keep burning. If the pilot goes out when you release the knob, repeat steps 5, 6, and 7.

Preheating Fryer: Turn Fryer On

- Turn the unitrol knob to the On position. See Fig. 10.
- Press the **ON/OFF key**
  - Controller beeps one standard tone
  - Left display shows actual temperature.
  - Right display shows temperature status (i.e. "Lo", "HI" or "rEdY")

Note: The control selects the last used product key as a default

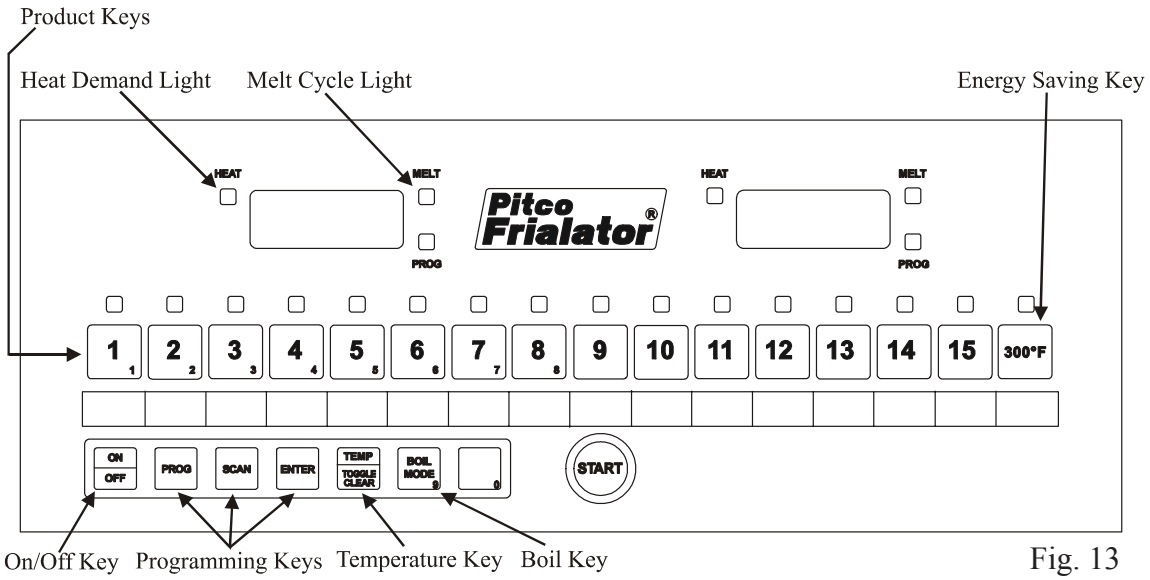


Fig. 13

Preheating Fryer: Melt Shortening

- When shortening is below 150°F, the fryer is in Melt Mode
  - Left display shows actual temperature.
  - Right display shows "Lo"
  - All Product ID lights are off
  - Melt indicator light is on

Note: In Melt Mode the burners cycle on for 8 sec. then off for 22 sec.

Note: Allow 45 minutes for fryer to heat to cooking temperature.

Preheating Fryer: Heat Shortening

- When shortening exceeds 150°F, the fryer switches to Cook Mode
  - Left display shows actual temperature.
  - Right display shows "Lo"
  - A Product ID light is on
  - Heat indicator light on

Note: The Product ID light indicates which product program is selected

Using Fryer: Select Product to Fry

- Press the appropriate **Product ID** key
  - Controller beeps three dull tones
  - Left display shows actual temperature.
  - Right display shows temperature status (i.e. "Lo", "HI" or "rEdY")
  - Selected Product ID light is on

  Heat indicator light cycles on and off with demand for heat

Using Fryer: Wait Until Ready

- Wait until right display shows "rEdY"
  - Left display shows actual temperature.
  - Right display shows "rEdY"
  - Selected Product ID light is on
  - Heat indicator light is off

  Note: "rEdY" is shown when shortening within –5°F and +10°F of set point

Using Fryer: Start Fry Cycle

- Press the **START** key
  - Controller beeps one standard tone
  - Left display shows remaining time in "min:sec"
  - Right display shows action required (i.e. droP, --, FLiP, Sub)
  - Selected Product ID light is on

  Note: Controller will beep a 4 second dull tone if not "rEdY" (i.e. -5/+10°F of set temperature)

Using Fryer: Fry Yeast Donuts

- Drop a screen of yeast donuts
  - Left display shows remaining time
  - Right display shows "——"
  - Selected Product ID light is on

  Note: Since yeast donuts are dropped all at once at the beginning of the cycle a drop action isn't shown

Using Fryer: Fry Yeast Donuts

- Flip donuts when right display shows "FLiP" and controller beeps two standard tones
  - Left display shows remaining time
  - Right display shows "FLiP"
  - Selected Product ID light is on

  Note: The controller also beeps two standard tones at end of flip period (i.e. 14 sec.)

Using Fryer: Fry Yeast Donuts

- Remove products
  - Controller beeps five standard tones
  - Both display flashes "donE"

  Note: Controller will reset itself to previously selected product after beeping five times

Using Fryer: Fry Cake Donuts

- Drop 30 cake donuts, 1 per second
  - Left display shows remaining time
  - Right display shows "droP"
  - Selected Product ID light is on

  Note: The Controller beeps one standard tone at the end of 30 second drop period

Using Fryer: Fry Cake Donuts

- Flip donuts when right display shows "FLiP" and Controller beeps two standard tones
  - Left display shows remaining
  - Right display shows "FLiP"
  - Selected Product ID light is on

  Note: The Controller also beeps two standard tones at end of flip period (i.e. 14 sec.)

Using Fryer: Fry Cake Donuts

- Remove products
  - Controller beeps five standard tones
  - Both display flashes "donE"

  Note: Controller will reset itself to previously selected product after beeping five times

Using Fryer: Other Products

- Drop product – machine cut only
  - Controller beeps one standard tone at end of drop period
  - Left display shows remaining time
  - Right display shows "droP"

  Note: A screen of yeast or hand cut products is dropped once the start button is pressed

Using Fryer: Other Products

- Flip product
  - Controller beeps two standard tones at both beginning and end of period
  - Left display shows remaining
  - Right display shows "FLiP"

  Note: 14 seconds are allocated for flipping the donuts

Using Fryer: Other Products

- Submerge products
  - Controller beeps three standard tones at the beginning of the period
  - Left display shows remaining
  - Right display flashes "Sub"

  Note: Yeast and cake donuts are not submerged

Using Fryer: Other Products

- Remove products
  - o Controller beeps five standard tones
  - o Both display flashes "donE"

  Note: Controller will reset itself to previously selected product after beeping five times

Turning off the Fryer

1. Press the **ON/OFF** key to turn the controller off. See **Fig. 13**. If the main burners are on, they will go out.
2. Turn the Unitrol knob past the Pilot position, to the Off position. See Fig. 14. The pilot flame will go out.

3. Do not turn the fryer on again for at least 5 minutes. This allows time for extra gas to clear from the fryer.

Other features of the Controller

1. **Check temperature.** To check the temperature press and hold the "TEMP/TOGGLE CLEAR" key. The left display will show actual temperature and the right display will toggle between the actual temperature and the programmed temperature. Actual temperature indicated in the right display is preceded by an "A". Set (or programmed) temperature is preceded by a "P".

2. **Hi temperature warning.** When the shortening temperature is more than 10 degrees above the set temperature, the display will show "Hi". If a fry cycle is started, a 4 second dull tone will be heard at the beginning of the cycle countdown. The unit will emit a continuous tone if the actual temp is over 400°F.

3. **Low temperature warning.** When the shortening temperature is more than 5 degrees below the programmed vat temperature, the display will show "Lo". If a fry cycle is started, a 4 second dull tone will be heard at the beginning of the cycle countdown.

4. **Probe warnings.** If the temperature probe is "open" or "shorted" the computer display will show "Prob" and will be accompanied by an audible alarm. Call an Authorized Service Technician.

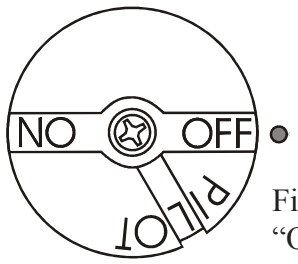


Fig. 14
"Off" position on unitrol

5. Check recovery. To check the heat recovery of the fryer, press and hold the "ENTER" key. The left display will show "rEC" and the right display will show the recovery minutes. If the recovery time is over 7 minutes, call an Authorized Service Technician.

6. Boil mode. The "BOIL MODE" key is used when boiling out the fryer. Pressing the "BOIL MODE" key will program the set temperature to 225°F

   NOTE: The actual temperature must be below 225°F to enter the boil mode.

   NOTE: Monitor water level during boil out. Fry tank may be damaged (and warranty voided) if water evaporates below top of heat tubes. Do not allow water to boil over tank.

7. Drain switch. The controller will turn off if the drain valve is opened. If the controller will not turn on, make sure the drain valve is closed.

8. Setback temperature. Pressing the Product ID button marked "300°F" will cause the fryer to enter Energy Saving Setback Mode. The set temperature will be maintained at 300°F. To resume normal frying operations, press the Product ID Key for the product desired.

FILTER OPERATING INSTRUCTIONS

FILTERING THE SHORTENING
Do this once a day

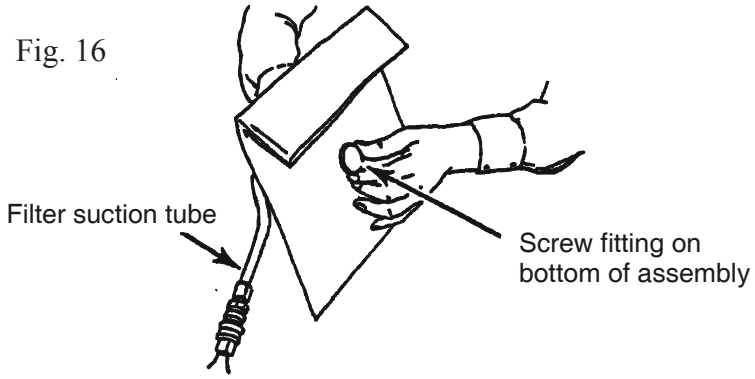
Assemble the Filter

1. Remove the cover of the filter pan. Take out the filter assembly, shown in Fig. 16 and Fig. 17. If the filter envelope is discolored or dirty, install a new filter envelope. Remove the round filter screw from the bottom of the filter housing. See Fig. 16. Pull the filter screen and envelope away from the suction tube. Remove the old filter envelope from the filter screen and throw it away.

   Slide the new filter envelope onto the filter screen. The holes in the envelope should line up with the holes in the filter screen. Line up the opening on the suction tube with the holes in the filter envelope and the filter screen. Install the filter screw through the hole in the filter screen, as shown in Fig. 16. Thread the filter screw into the opening of the suction tube.

   Fold the flap of the filter envelope over the edge of the filter screen. Place the filter assembly in the filter pan. The filter screw should fit into the hole provided in the bottom of the pan. Slide the edge of the filter assembly into the clamp on the bottom of the filter pan. This clamp is designed to hold the folded edge of the filter envelope in place.

Fig. 16



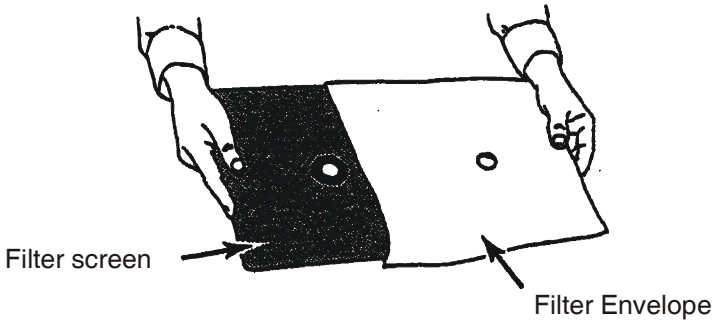


Fig. 17

Drain the Fryer

WARNING! Wear insulated oil-proof gloves when you do this!

2. Figure 18 shows how to set up the fryer. Press the controller ON/OFF button to turn the controller off.
3. Turn off the gas valve. Turn the handle counterclockwise, so it points to the off position.
4. Slowly push the filter pan back into the fryer until it stops.
5. Twist the drain nipple into the bottom of the drain valve. The drain hole in the cover of the filter pan should be just below the opening of the nipple.
6. Connect the filter assembly to the white quick- disconnect fitting. Figure 19 shows how to use the quick-disconnect. Sprinkle 12 oz. of precoat powder onto the filter paper.
7. Connect the flush hose to the black quick-disconnect.
8. Open the drain valve by turning the handle counterclockwise, so that it points downward. The oil will drain into the filter pan.

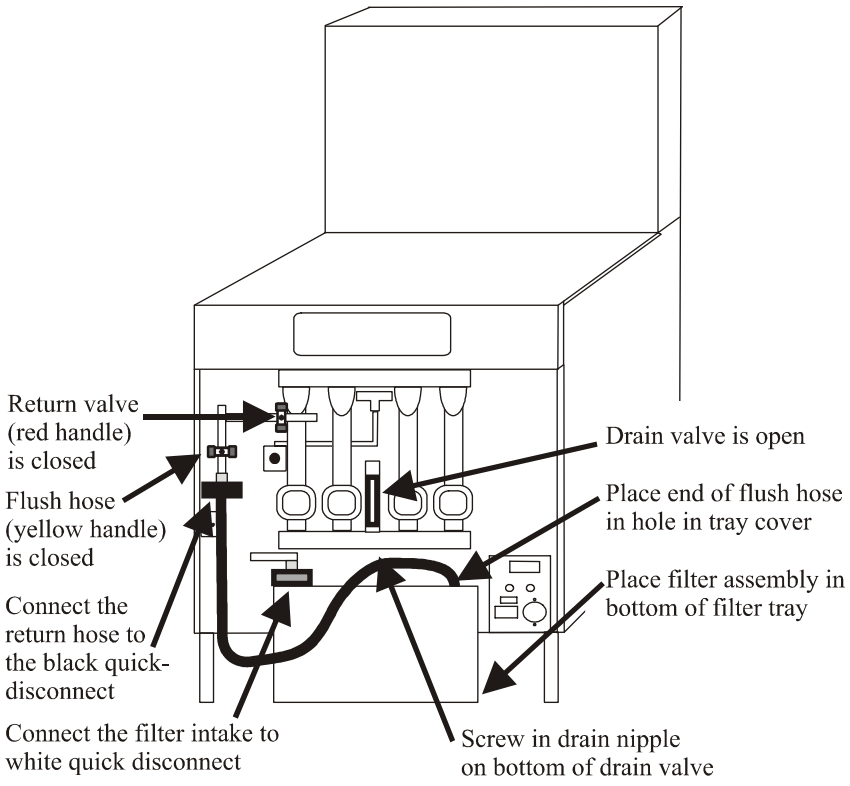

Return valve (red handle) is closed
Flush hose (yellow handle) is closed
Connect the return hose to the black quick-disconnect
Connect the filter intake to white quick disconnect
Drain valve is open
Place end of flush hose in hole in tray cover
Place filter assembly in bottom of filter tray
Screw in drain nipple on bottom of drain valve

Fig 18
Drain the shortening

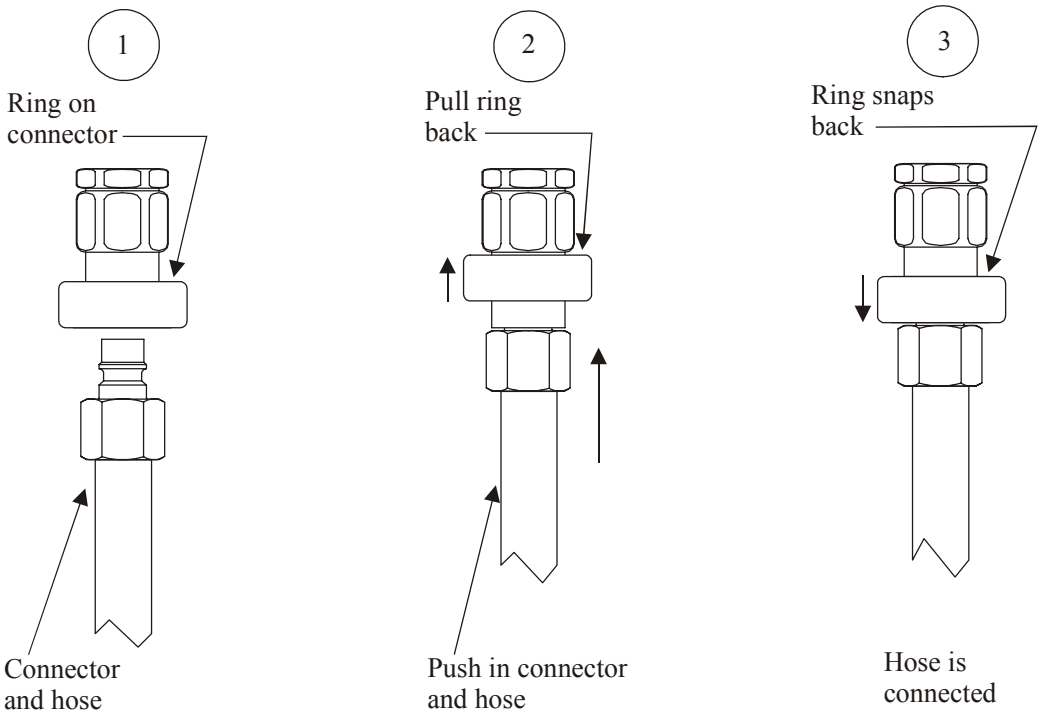


Fig 19
Using a quick-disconnect

Flushing the Fryer

9. Lift the submerger screen out of the tank, and lock it in position.
10. Open the flush valve (yellow handle) as shown in Fig. 20.
11. Close the return valve (red handle).
12. Remove the tube screen. Carefully place the end of the flush hose inside the tank.

WARNING! Do not aim the end of the flush hose at anyone. Hot oil might come out of the hose, and burn someone.

13. Hold the flush hose handle. Set the Pump On-Off switch in the Pump On position. Rinse out the bottom of the tank with the shortening
14. When you are finished, press the pump power switch Off.

Circulate the Oil

15. Close the flush valve (yellow handle), as shown in Fig. 21.
16. Disconnect the flush hose from the black quick-disconnect. Drain the hose into the filter pan.
17. Open the return valve (red handle).
18. Press the pump power switch to the On position. The shortening will be pumped from the filter tank, into the fry kettle, and return to the filter tank. The filter paper and the precoat will remove debris from the shortening. Allow oil to circulate for 5 minutes.

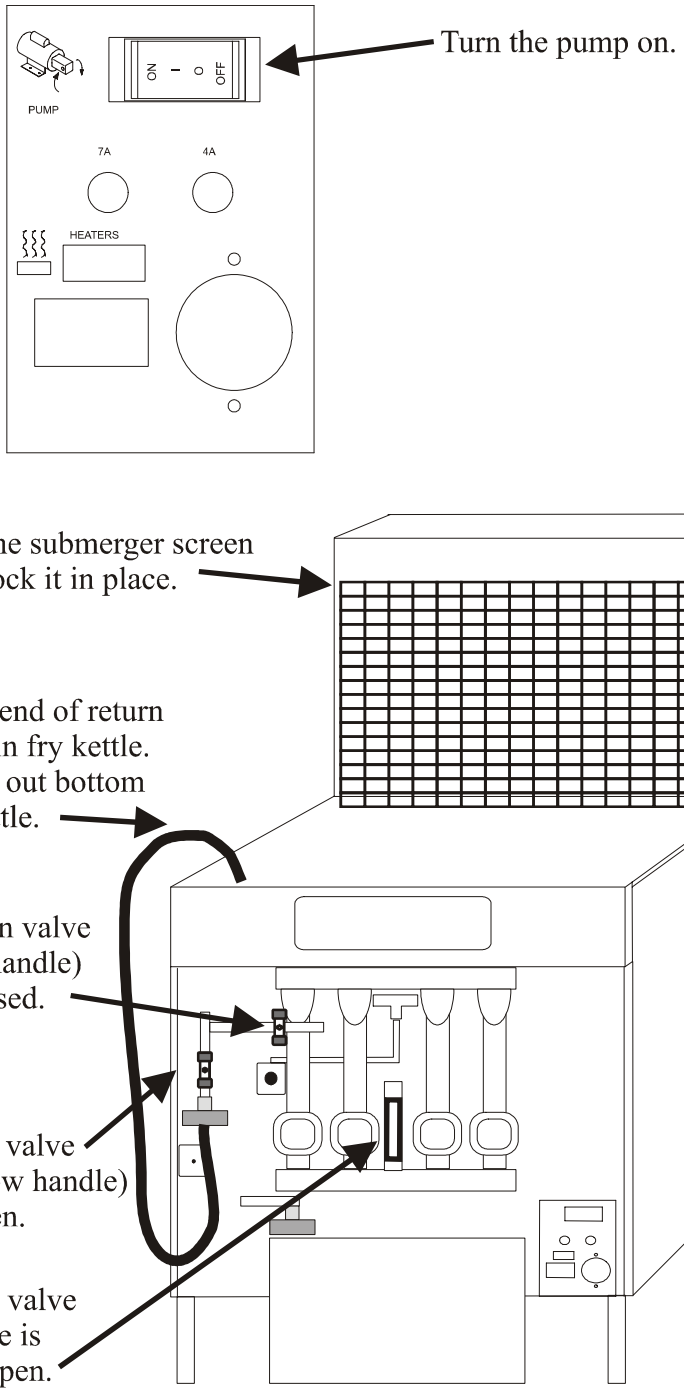

Turn the pump on.
ON
OFF
PUMP
7A
4A
HEATERS
Lift the submerger screen and lock it in place.
Hold end of return hose in fry kettle. Flush out bottom of kettle.
Return valve (red handle) is closed.
Flush valve (yellow handle) is open.
Drain valve handle is still open.

Fig 20
Flush the fry vat

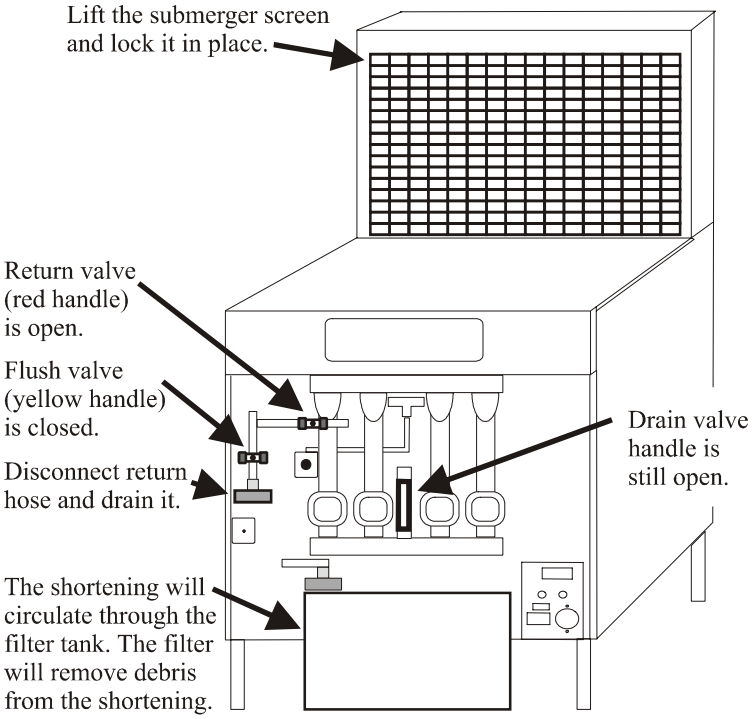

Lift the submerger screen and lock it in place.
Return valve (red handle) is open.
Flush valve (yellow handle) is closed.
Disconnect return hose and drain it.
The shortening will circulate through the filter tank. The filter will remove debris from the shortening.
Drain valve handle is still open.

Fig 21
Circulate the shortening

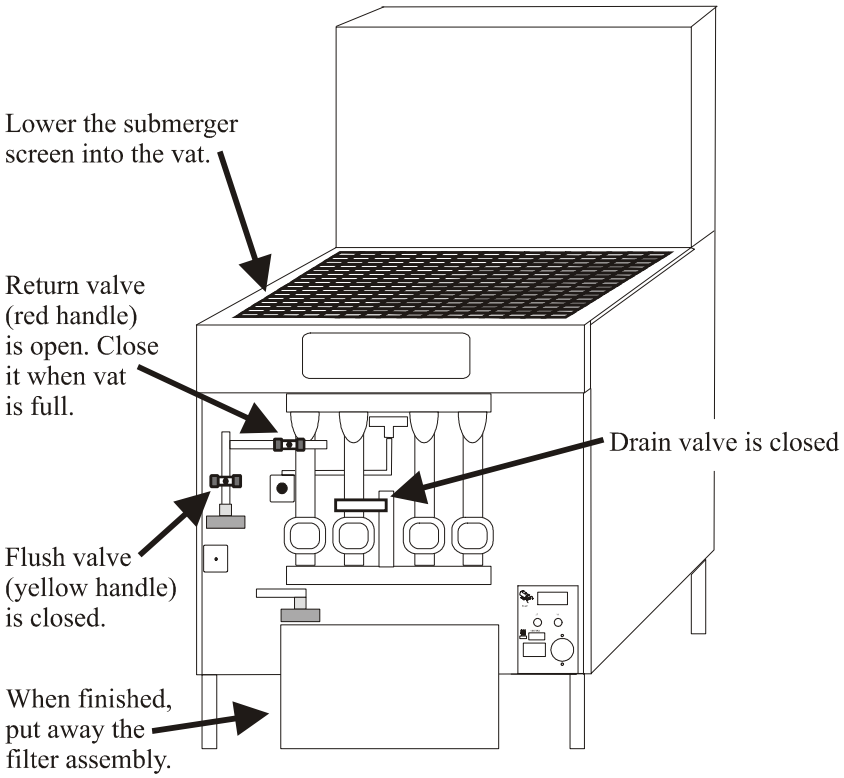

Lower the submerger screen into the vat.
Return valve (red handle) is open. Close it when vat is full.
Flush valve (yellow handle) is closed.
When finished, put away the filter assembly.
Drain valve is closed

Fig. 22
Return the shortening

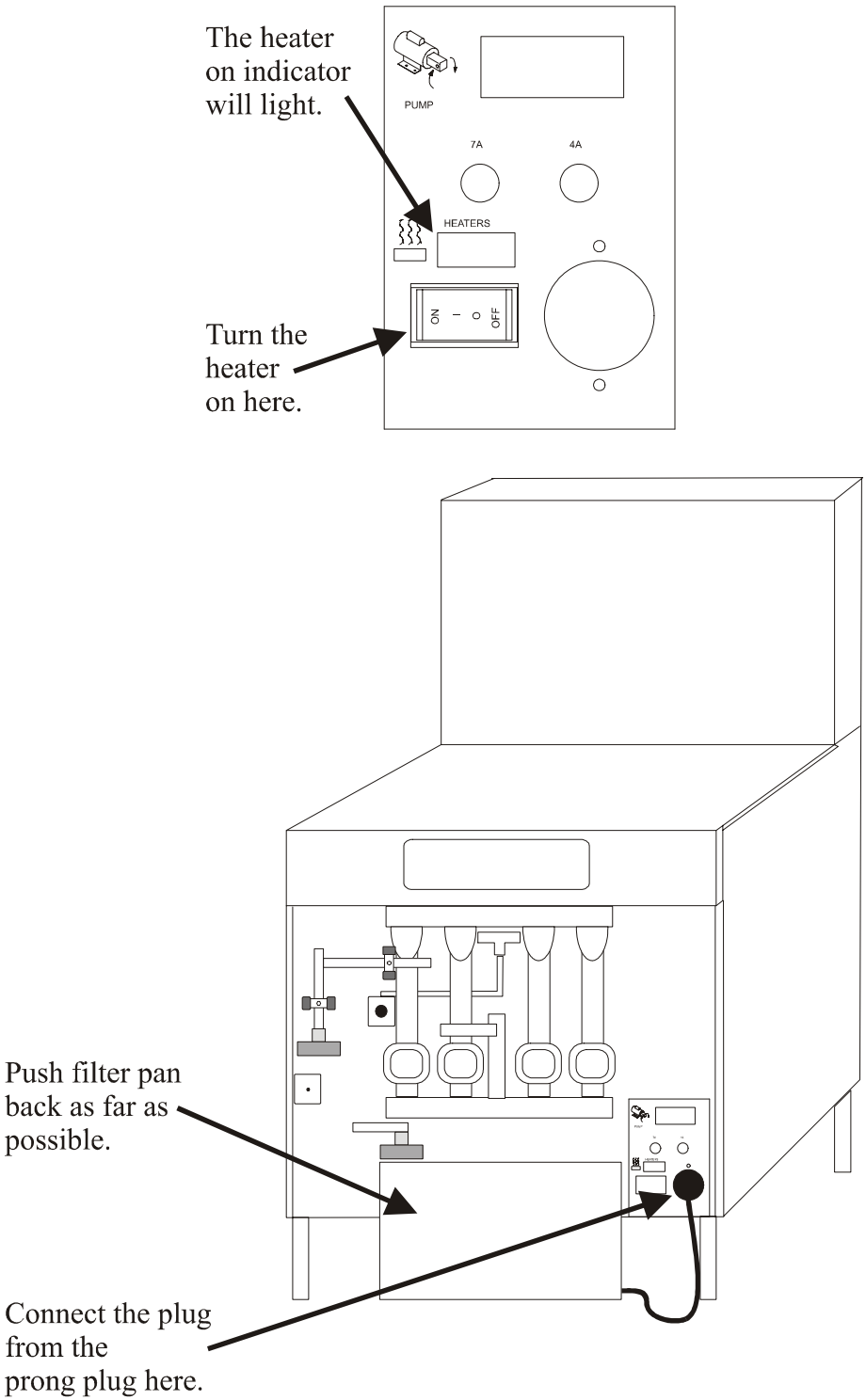


Fig 23
Using the filter pan heaters

19. When you are through circulating the shortening, press the pump power switch to the Off position. Allow the shortening to drain from the tank.
20. While the parts of the fryer are still warm (135°F, 57°C), wipe off the submerger screen and the inside of the tank. Replace the tube screen.

Refill the Fry Tank

21. Place the tube screen back in the fry tank.
22. Close the drain valve as shown in Fig. 22. Move the handle clockwise until it stops.
23. Press the pump power switch to the On position. Wait until the shortening reaches the level mark, or all of the oil has been pumped out of the filter pan, then press the switch to the Off position.
24. Close the return valve (red handle).
25. Close the doors. The fryer is ready to operate.

Using the Filter Pan Heater

1. If you put shortening in the filter pan, the shortening will become solid when it cools. The filter pan has an electrical heater which can be used to warm the shortening in the filter pan. The pump will not be able to pump the shortening while it is solid.
2. To use the filter pan heater, find the filter carriage power cord at the rear end of the filter pan. See Fig. 23. Push the filter back into the fryer as far as it will go.
3. Plug the power cord into the socket on the right side of the fryer.
4. Set the heater power switch to the On position. The Heater indicator will light.
5. Leave the heater on until the solid shortening has melted. Press the Heater power switch to the Off position.

Weekly Cleaning/Boil Out

WARNING! Wear oil-proof insulated gloves as you do this.

1. Preheat shortening to 375°F.
2. Press the **ON/OFF** key to turn the controller off. If the main burners are on, they will go out. Turn the Unitrol knob past the Pilot position, to the Off position. See Fig. 14. The pilot flame will go out.
3. Drain the shortening into the filter pan and turn the pan heater on.

   Note: Put clean filter paper in filter pan before draining shortening into pan.
4. Remove the tube screen. Use hot shortening to flush out any remaining sediment in the bottom of the kettle.
5. While the fryer parts are still warm (135°F or less), wipe off the tube screen and the inside of the kettle.
6. Close drain valve (handle to the left) and fill vat with water to one inch from top.
7. Relight pilot, turn computer on and press “BOIL MODE”.

NOTE: The fryer must be below 225°F to enter the boil mode.

8. Add the amount of boil-out compound indicated on package label.

WARNING! The fry vat will maintain 225°F and must be monitored so that it does not boil over or that the water does not boil off below the burner tubes.

9. Let the vat boil for at least one hour or until the shortening deposits are softened.

10. Turn off the controller and pilot.

11. Use a scrub brush to scrub the top half of the fry vat and burner tubes to remove any residue.

12. Remove filter pan and drain water down to burner tubes into a container that boiling water will not melt.

13. Scrub the rest of the inside of the fryer and burner tubes with a nylon scouring pad.

14. Drain the remaining water.

15. With a nylon scouring pad, scrub any remaining carbon deposits.

Note: Do not use steel wool, wire brush or any type of abrasive cleaner to scrub tubes and sensing bulbs.

16. With the drain valve open, rinse the vat.

17. Close the drain valve and refill with water to one inch from the top.

18. Relight pilot, turn controller on and press “BOIL MODE”.

19. When the water begins to boil, add one pint of vinegar to fryer and allow to boil for five minutes.

20. Turn off the controller and pilot. Drain the water and vinegar, and rinse the vat with clean water.

21. Wipe the vat dry with a clean cloth. Replace the tube screen.

22. Close the drain valve (points left). Pump the shortening back into the vat or pack the vat with new shortening.

23. Remove the drain nipple. The fryer is ready to operate.

Cleaning As Needed

1. If any shortening spills or splashes onto the outside of the fryer, wipe it up while it is still warm with a clean soft cloth.
2. If you have to clean any painted surfaces, use warm water and a mild detergent.
3. If you have to scrub to remove tough spots or stains, use a nonabrasive scouring powder and/or pads.

Recommended Frying Practices

1. Use only the best quality shortening - it will last longer than the cheaper grades. Good shortening will also produce foods that taste and look better.
2. The shortening will break down if it gets too hot, or if it is exposed to air or light, or if it is mixed with water or salt. Fry the doughnuts at the proper temperature setting. Keep the kettle covered with the drainboard when you’re not using the fryer.
3. Filter the shortening at least once a day.

4. Keep the kettle clean. Follow the instructions in the section on "Weekly Cleaning."
5. Try to keep water out of the shortening.

If the Power Fails

If the main power (120V or 220/240V AC) fails, the fryer will stop operating and turn off the main burner gas automatically. Shut off pilot by turning unitrol knob to the off position.

If you smell gas

When the fryer is operating normally, you should never smell gas. If you do smell gas, something is wrong. If there is a gas leak, the gas may collect in the building. The gas may then be ignited by a spark or open flame, causing a dangerous explosion. LP gas (propane) is heavier than air, and tends to collect at floor level. The gas smell may be stronger near the floor. Here are some general safety rules:

If you smell gas, turn off the gas valve in the fryer right away. Do not press the controller ON/OFF key. This switch could create a spark, and light the gas by accident. Also turn off the gas at the main gas valve, on the gas tank outside the building, or at the main gas pipe.

Everyone should leave the building right away. Call the gas company and the fire department, and wait outside the building until they arrive. On the telephone, be sure to give your name, address and phone number. Do not go back into the building.

Do not light any matches or lighters. Do not turn any electrical switches on or off - this can create a spark which can ignite the gas. Do not use an electric fan to clear the gas.

For more detailed instructions, ask your local gas supplier. Write down the instructions and post them in a visible place. Be sure everyone understands what to do if they smell gas.

In the event of problems with or questions about your order, please contact the Pitco Frialator factory, from 8:00 a.m. - 5:00 p.m., Eastern Standard Time, Monday through Friday

(603) 225-6680

In the event of problems with or questions about your order, please contact the Pitco Frialator Authorized Service and Parts representative (ASAP) covering your area, through Pitco at:

(603)-225-6684

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